

# ALS series

Product Leaflet



siae microelettronica

## 4 to 42 GHz Microwave System Packet and Hybrid Configuration

Backhaul network requires a transport solution with great flexibility to support multiple access technologies.

ALS Series provides Native IP, Native PDH and SDH connections to address in a single equipment solution all traffic needs. It covers any market segment ranging from cost-sensitive applications to advanced network implementations in which high capacities, complex protection schemes and excellent reliability are mandatory.



Firenze, Italy

# MICROWAVE RADIO



ALS superior mix of Packet and TDM interfaces allows easy network evolution from pure TDM to pure IP with circuit emulation option. Its advanced packet capabilities are certified to comply with LTE transport requirements.

A complete range of user interfaces (E1, Gigabit/Fast Ethernet and STM1) and a high degree of versatility allows for a very easy network planning and management.



## MAIN FEATURES

- 4 QAM to 256 QAM modulations
- ACM adaptive code and modulation
- MultiLayer Header Compression
- XPIC configuration in a 1U IDU
- 1 Gbits throughput radio
- Native/PWE3 TDM services defined by software
- CISCO Microwave Adaptive Bandwidth feature interworking
- Mixed TDM/Ethernet interfaces for dual native transport
- Synchronous Ethernet support
- IEEE 1588 v2 support
- Extended buffer for maximum TCP/IP efficiency in LTE networks
- Integrate antennae up to 1.8 m
- Single Universal ODU for any capacity and modulations
- Layer one Radio Link Aggregation
- Unified Network Management System – NMS5

## LAYER 2 MAIN FUNCTIONALITIES

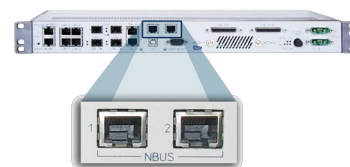
- MEF-9 and MEF-14 certified
- 8 queues with flexible scheduler (Strict WFQ and mixed)
- Flexible QoS definition based on VLAN, IPv4, IPv6, MPLS exp bits
- Per queue WRED congestion avoidance
- Flow Based Ingress Policing (CIR & EIR definition)
- Egress shaping
- ERP Support G.8032 v.2
- Flow Control IEEE 802.3x
- RMON Statistics
- VLAN/VLAN STACK ING (IEEE 802.1q with QinQ)
- Link Aggregation IEEE 802.3ad
- ETH OAM IEEE 802.1ag/ITU-T Y 1731
- Jumbo Frames up to 10 Kbytes

## TYPICAL APPLICATIONS

- 2G/3G/4G Cellular Network backhauling infrastructure
- Leased Lines replacement
- Utility Networks (Railways, Oil&Gas)
- Private Data Networks (WANs, LANs, etc)
- WiMAX Backhauling
- Fibre Optics extension, termination and backup
- RMON Statistic
- Spur Links for Backbones/Rings
- High capacity Broadband Access Networks

## Nodal Configuration

Real “pay as you grow” approach. Thanks to the NBUS connectivity it is possible to incrementally expand from one to sixteen independent radio directions. This solution allows deployment of a common platform regardless of the number of directions employed day one, or required in the future. Single element management allows easy cross connections.



MEMBER OF:



COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =